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10/649,164	08/27/2003	David James Beale	4316-031612	4762

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EXAMINER

TRAN, LEN

ART UNIT	PAPER NUMBER
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1725

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/649,164
Filing Date: August 27, 2003
Appellant(s): BEALE ET AL.

MAILED
JAN 30 2007
GROUP 1700

Kirk M. Miles
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed November 29, 2006 appealing from the Office action mailed on May 02, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

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(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,589,467	HUNTER	5-1986
3,972,368	KIKKAWA ET AL	8-1976
3,200,451	WORSWICK	8-1965

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, 8-10, and 66-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (US 4,589,467).

Hunter discloses a casting machine comprising a source of molten metal, a rotatable annular ring, shaped to carry a plurality of ingot casting molds, with support structures comprising inner and outer rails. Hunter further discloses drive means for indexing the molds

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comprising gears comprise of cam followers and sprocket (abstract, figures, and col. 3, lines 55-65). The sprocket can be driven by AC motors or variable frequency controller.

Hunter fails to mention a casting machine to cast aluminum ingot. However, it would have been obvious to cast any kind of metal using Hunter's apparatus, since Hunter's apparatus is for casting metal.

3. Claims 11, 13-16, 28-30, 35, 37, 39-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (US '467) as applied to claim 1 above, and further in view of Kikkawa et al (US 3,972,368).

Hunter disclose the claimed invention above, but fails to teach two pivoting crucibles and having a Y-shaped launder, and a skimming apparatus.

Kikkwawa et al disclose a titable crucible having a Y-shape launder (col. 3, lines 35-50) and a skimming apparatus for the purpose of scraping the dross off the molten metal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide titable crucibles with Y-shape launder with a skimming apparatus as taught by kikkwawa et al, in Hunter in order to scrape off dross on the metal.

4. Claims 17, 19-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (US '467) as applied to claim 1 above, and further in view of Worswick (US 3,200,451).

Hunter disclose the claimed invention above, but fail to teach water sprayer located at the bottom of the annular ring.

However, Worswick discloses water sprayer underside of the mold for effective cooling. Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide underside cooling as taught by Worswick, in Hunter in order to have effective cooling.

Allowable Subject Matter

5. Claims 21-26, 31-34, 36, 38, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 62-65 are allowed.

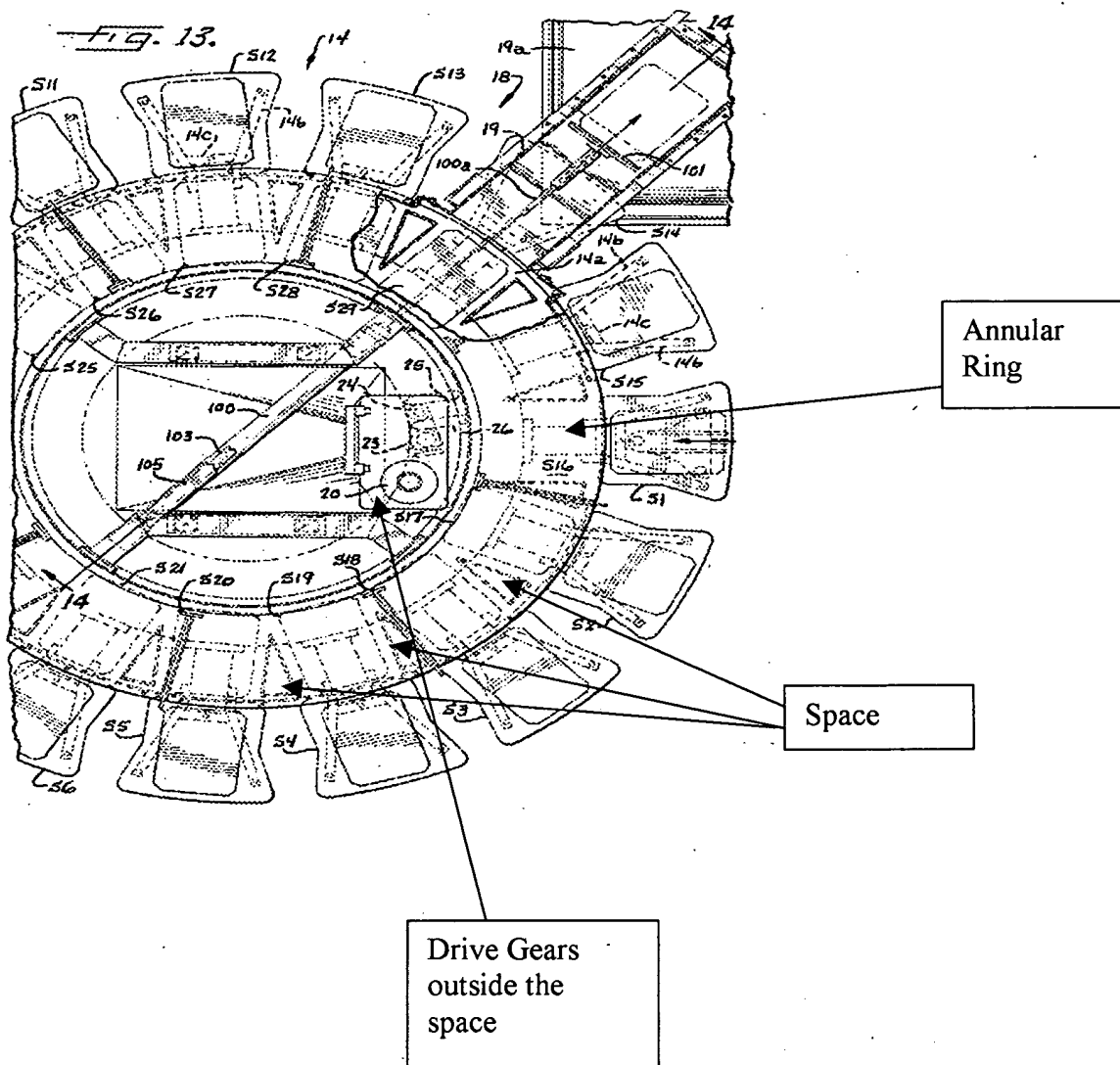
(10) Response to Argument

As to page 12, 2nd-4th paragraph, appellant argues that "*Hunter fails to teach or suggest an annular ring defining a space inside of the ring as required by independent claims 1 and 66, i.e. an annular ring that is substantially hollow.*" Furthermore, appellant argues that Hunter teaches away from the present invention, since Hunter has components within the carousel ring. Appellant had generated both appendices "A" and "B" to show that there exist component (20) within the annular ring. Examiner respectfully disagrees, since Hunter clearly teaches the claimed invention as claimed.

At the outset, examiner would like to indicate why the amendment after final filed on 6/29/06 was not entered. The term, “substantially hollow”, as interpreted by the examiner to be “a hollow” portion of the ring, i.e. a hollow “rail”, “ring” or a hollow tube. Therefore, this would require a new search.

As to appellant’s argument that Hunter fails to teach the claimed invention, “*an annular ring defining a space*”, it is clearly shown in figure 13 that the annular ring of Hunter has a space. Figure 13 is regenerated below by examiner to show broadest interpretation. ***Clearly in the figure of Hunter***, there is a space inside the ring and a drive means (20) is located outside the space. Similarly to appellant’s figure 1, the drive means (47) is inside the ring, but outside the space. As to appellant’s argument that Hunter teaches component within the annular ring is opposite of appellant’s invention is not understood, since figure 1 of appellant’s invention shows component 47 is within the annular ring. Therefore, Hunter does not teach away, but substantially the same invention. Therefore, appellant’s argument is moot and rejection is proper.

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As to page 13, appellant argues that Kikkawa discloses *the exact opposite of the invention of claim 11, by teaching a single feed source to two separate molds as opposed to two separate feed sources for a single mold*. Examiner agrees that Kikkawa discloses a Y-shape dispensing unit, feeding to two other molds, wherein appellant's invention is using the Y-shape from the two molds to dispense into one. However, the gist of the invention is using a Y-shape dispenser to dispense molten metal. Whether it dispenses from one source to two, or from two sources to

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one, would have been obvious to an ordinary skill in the art, since only the Y-shape would allow an interconnection between three molds. Therefore, a modification to how it is being dispensed would require a Y-shape dispenser.

As to page 14, last paragraph, appellant argues that Worswick fails to teach a plurality of nozzles for spraying water onto the molds as recited in claim 17. Examiner respectfully disagrees. Worswick discloses in column 1, lines 10-13, to spray the undersides of the molds with water. Therefore, Worswick implicitly discloses plurality of nozzles since there is more than one mold.

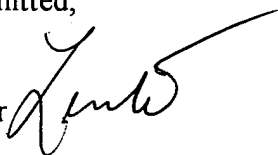
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Len Tran
Primary Examiner
AU 1725



Conferees:

Patrick Ryan



Steve Griffin

